

Appl. No. 09/708,492
Reply to Office Action of May 3, 2005

REMARKS

Claims 1-31 and 33-46 are pending in the application. By this Amendment claims 1, 12, 22, 30, 31, 33 and 40 are amended, claim 46 is added, and claim 32 is canceled without prejudice or disclaimer to the subject matter set forth therein. Applicants respectfully request reconsideration of this application in view of the foregoing amendments and following remarks.

No new matter has been added by this Amendment. Support for the amendments to the claims may be found on pages 9 and 10 of the application, for example.

A. The Claim Rejection under 35 U.S.C. § 103(a)

The Office Action asserts that claims 1-5, 7, 9-15, 17, 19, 20, 22-24, 26, 28-34, 36, 38-42, and 44-45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,781,549 to Dai ("Dai") in view of U.S. Patent No. 5,287,461 to Moore et al. ("Moore"). This rejection is respectfully traversed.

Claim 1 recites a multiple port unit adapted for coupling one or more computers to multiple peripheral devices over a network, said multiple port unit comprising, plural network ports, each of said network ports being configured to couple the multiple port unit to a computer over a respective network link; plural communication serial ports, each of said communication serial ports being configured to couple the multiple port unit to a peripheral device; and a control unit configured to interrogate the network links and to communicatively couple said communication serial ports to a selected one of said network ports based on the interrogation of the network links. Claim 1 has been amended by the present amendment to recite "the control unit being further configured to determine whether it is time to interrogate the network links." Claim 1 has been so amended to clarify the nature of the processing of the control unit, i.e., that the control unit is effecting an interrogation.

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The teachings of Dai were discussed in the February 9, 2005 Amendment. As described in the Abstract of Dai, Dai is directed to a method and apparatus for switching data packets in a data network, that includes "a local area network switch which implements packet segmentation and reassembly for cell-based switching on a backplane cell bus. A plurality of packet processing units are each coupled to a backplane cell bus wherein each packet processing unit hosts a plurality of local area network ports. Each packet processing unit is associated with a single packet buffer memory that is shared by the ports associated with the packet processing unit. Dai teaches the segmentation of local area network packets into fixed-size cells facilitates an efficient local area network switch which provides dedicated bandwidth for each of the ports associated with the switch. There is also provision for coupling the local area network ports to communicate with a high-speed network interface"(Abstract).

Claim 1 recites among other features, *a control unit configured to interrogate the network links and to communicatively couple said communication serial ports to a selected one of said network ports based on the interrogation of the network links.* Claim 1 further recites *the control unit being configured to determine whether it is time to interrogate the network links.* Based on at least the reasons set forth below, Applicant respectfully traverses the rejection set forth in the Office Action and the basis thereof.

The Office Action appears to maintain the basis of the rejection set forth in the prior Office Action. The Office Action asserts that Dai teaches a multiple port unit adapted for coupling one or more computers to multiple peripheral devices over a network (Dai: col. 4, lines 38-43, Figure 1), said multiple port unit comprising plural network ports (Dai: col. 2, lines 25-33; col. 4, lines 38-43), each of said network ports being configured to couple the multiple port unit to a computer over a respective network link (Dai: col. 2, lines 25-33; col. 4, lines 38-43;

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where Ethernet ports are network ports); and a control unit configured to interrogate the network links and to communicatively couple said ports to a selected one of said network ports based on the interrogation of the network links (Dai: col. 2, lines 48-59).

The Office Action further asserts that Dai does not explicitly state serial ports. However, the Office Action asserts that Moore teaches plural communication serial ports (Moore: col. 3, lines 4257), each of said communication serial ports being configured to couple the multiple port unit to a peripheral device (Moore: col. 3, lines 58-65). The Office Action also asserts that Moore further teaches the serial console line for each server has the capability to transmit to and receive from a serial port with another device (Moore: col. 2, lines 40-45). The Office Action then concludes it would have been obvious at the time of the invention to one of ordinary skill in the art to create the multiple port packet switch as taught by Dai while employing the use of serial ports as taught by Moore in order to transmit and receive with a serial port and other devices (Moore: col. 2, lines 40-45).

Applicant respectfully traverses the assertions of the Office Action. Applicant submits that Dai fails to teach the features of claim 1 including a control unit configured to interrogate the network links and to communicatively couple said communication serial ports to a selected one of said network ports based on the interrogation of the network links. Instead, Dai teaches routing controller 230 itself is a device connected to the cell bus 220; and that internally, it only takes the address information cells for searching its routing table for the destination port(s) and to learn the source address information for table maintenance within its routing table 235"(column 9, lines 22-27).

Applicant notes in particular that the Office Action alleges that Dai teaches a control unit configured to interrogate the network links and to communicatively couple said ports to a

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selected one of said network ports based on the interrogation of the network links (Dai: col. 2, lines 48-59). This assertion is traversed.

In such disclosure of Dai of column 2, Dai describes that: coupled to the cell bus is a switch packet routing controller which monitors cell traffic on the cell bus. Dai further teaches that for each packet that is received, the switch packet routing controller analyzes the packet to determine which ports, if any, the packet is to be output from. The switch packet routing controller propagates a control cell on the cell bus directing each of the packet processing units how to "route" each packet being assembled thereby. Dai further teaches that the switch packet routing controller also has associated therewith a routing table memory which collects information on received packets for creating a routing table associating each port with addresses to which it is in communication.

It is submitted that such teaching of Dai relates to a routing situation, as well as monitoring. In sharp contrast, the claimed invention relates to *interrogating* the network links and to communicatively *couple* said communication serial ports to a selected one of said network ports based on the interrogation of the network links. Dai fails to teach such features relating to the "interrogating" *and* the "coupling" in particular, and the interrelationship there between.

Accordingly, it is respectfully submitted that even if it were obvious to somehow modify Dai with the serial ports of Moore, which Applicant does not admit to be, such modification would still fail to cure the deficiencies of Dai in teaching the claimed invention, as recited in claim 1. Accordingly, claim 1, as well as in particular claim 11, is allowable at least for the reasons set forth above.

On page 8, in the Remarks, the Office Action provides responsive comments to Applicant assertions in the February 9, 2005 Amendment. The Office Action asserts that the Dai reference

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does teach the limitation as claimed; and that Dai col. 2, lines 48-59 shows a controller which monitors traffic over the network. The Office Action asserts that in the instant application, the verb 'interrogate' is interpreted as monitoring the traffic across the network; and further asserts that monitoring is a form of interrogate, and thus the prior art meets the breadth of the limitation because interrogate is used broadly and without further detail. The Office Action further explains that Dai also teaches coupling ports, and that although Dai does not explicitly teach serial ports, Dai does show coupling of ports to a high-speed network interface through a bridging controller (Dai: col. 2, lines 60-67).

Applicant has carefully considered the Examiner's comments. Applicant maintains that Dai fails to teach the above noted features relating to the "interrogating" *and* the "coupling" in particular. The Office Action asserts that Dai teaches coupling ports. However, the Office Action does not appear to reflect that claim 1 does not simply recite to couple ports, i.e., claim 1 recites "to communicatively couple said communication serial ports to a selected one of said network ports". That is, such coupling is done based on the recited interrogation. Dai simply does not teach such specifics and the interrelationship between the coupling and the interrogation.

However, claim 1 has been amended to further recite the control unit being configured to determine whether it is time to interrogate the network links. Such language flows from the application and further reflects the nature of the recited "interrogation", i.e., as distinct from the monitoring of Dai.

For at least the foregoing reasons, Applicant respectfully submits that claim 1 defines patentable subject matter. Further, it is submitted that independent claims 11, 22, 30, and 40

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define patentable subject matter for reasons similar to those set forth above with respect to independent claim 1.

In addition, independent claim 30 has been amended to recite "wherein said control means interrogates plural computers over each of the network links in an alternating manner", which features were previously recited in dependent claim 32. Such language also reflects the nature of the claimed interrogation. Regarding the previous claim 32 features, the Office Action references Dai in column 8, lines 43-54. However, such disclosure of Dai is not seen to teach such claimed features, which set forth a particular interrelationship between the interrogation, coupling of ports and the alternation. That is, the Office Action appears to assert that Dai's manipulation of packets on a bus somehow teaches the claimed invention. However, such teaching of Dai falls far short of teaching such claimed specifics, especially in light the claimed alternating is vis-à-vis the claimed "computers", for example.

Applicant submits the independent claims are allowable. Further, the various dependent claims define patentable subject matter based on their various dependencies on the independent claims, as well as the additional features such dependent claims recite. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

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B. The Further 35 U.S.C. §103 Rejections

In the Office Action, claims 6, 16, 25, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dai in view of Moore and further in view of U.S. Patent No. 5,761,084 by Edwards. The Office Action also rejects claims 8, 18, 27, 37 and 43 under 35 U.S.C. 103(a) as being unpatentable over Dai in view of Moore and further in view of U.S. Patent No. 4,937,817 by Lin. Also, the Office Action asserts that claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dai in view of Moore.

The Office Action acknowledges that the proposed combination of Dai and Moore in the Office Action fail to teach various features of such dependent claims. For example, the Office Action asserts that the Dai and Moore references do not explicitly state the use of two redundant power supplies. The Office Action asserts that the Dai and Moore references do not explicitly state the use of the Packet Internet Groper when allegedly interrogating links. The Office Action further asserts that the Dai and Moore references do not explicit state intelligent devices as peripherals.

However, it is respectfully submitted that the secondary references, which the Office Action proposes to combine with Dai and Moore, fail to cure the deficiencies of Dai and Moore as described above.

Accordingly, it is submitted that claims 6, 16, 25, 35; claims 8, 18, 27, 37, 43; and claim 21 define patentable subject matter for at least the reasons set forth above, as well as for the further features that such dependent claims recite.

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C. Conclusion

For at least the reasons outlined above, Applicant respectfully asserts that the application is in condition for allowance. Favorable reconsideration and allowance of the claims are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

For any fees due in connection with filing this Response the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

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Date: August 3, 2005

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